

Fig. 1 DNA detection in various cacao and cocoa samples

1A, Native DNA detection in agarose gel using ethidium bromide

1B, Hybridisation of total cacao DNA on membrane transfer of native DNA agarose gel

M: indicates molecular size marker (λ /HindIII and ϕ 174/HaeIII), A is a DNA control from coffee leave, B is a DNA control from hazelnut leave, C is a DNA control from cacao leave, D is DNA sample from fresh cacao seed embryo, E is a DNA sample obtain with fermented cacao beans, F is a DNA sample from roasted nib and G is a DNA sample from dark chocolate (Nestlé Noir).

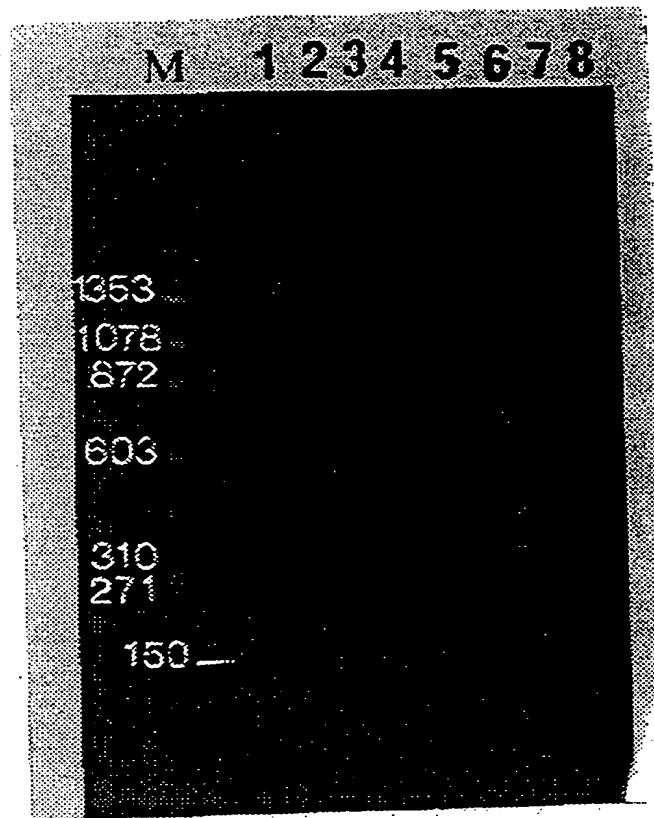


Fig. 2 PCR-DNA amplification of 5S intergenic spacer on different cacao samples
M: indicates molecular size marker in base pairs (λ /HindIII and ϕ 174/HaeIII), 1: Cacao leaves, 2: Cacao fresh bean, 3: Cacao fermented bean, 4 & 5: Cocoa roasted nib, 6 & 7 dark chocolate (Nestlé Noir), 8: negative control

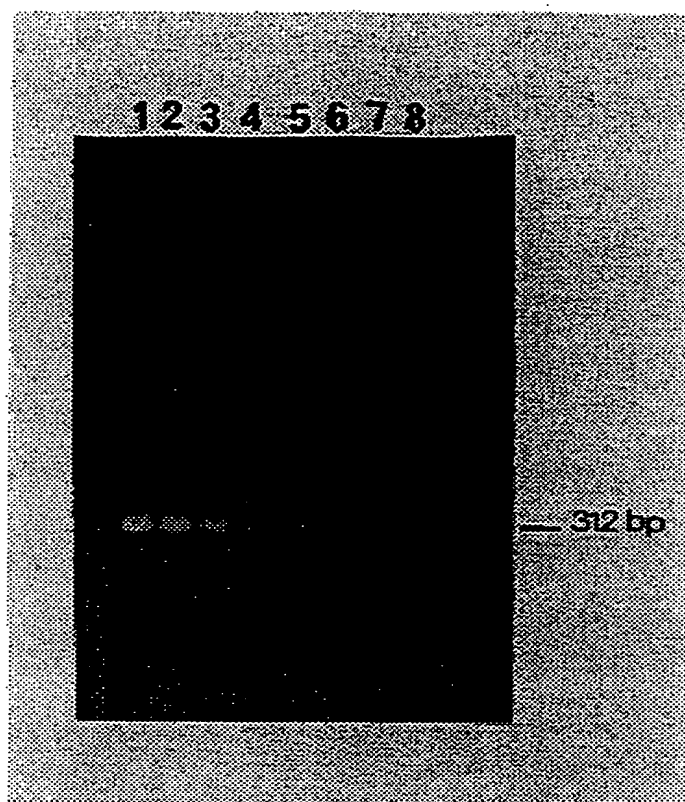


Fig. 3 **PCR-DNA amplification of intron 1 and exon 2 of Seed Storage Protein gene (SSP)**

1: Cacao leaves, 2: Cacao fresh bean, 3: Cacao fermented bean, 4 & 5: Cocoa roasted nib, 6 & 7 dark chocolate (Nestlé Noir), 8: negative control

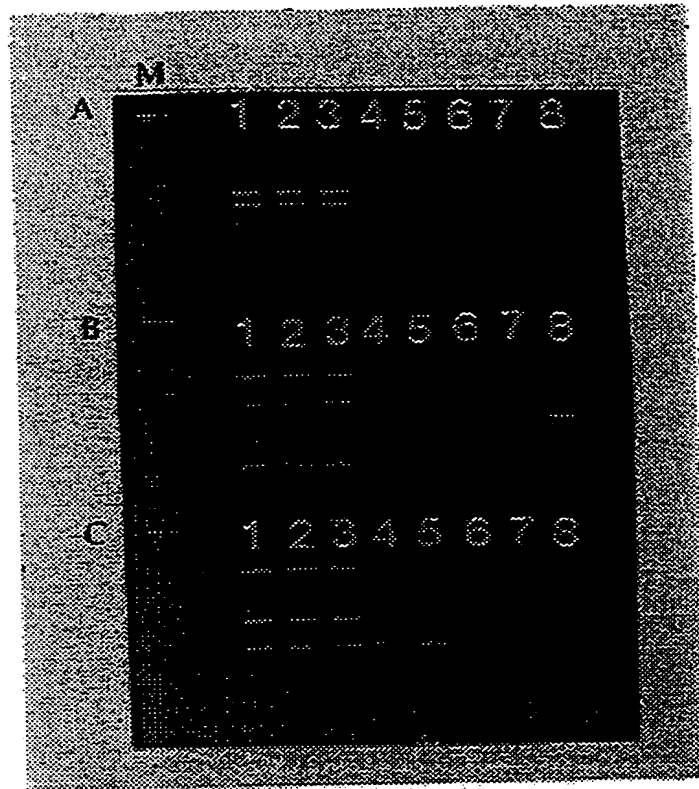


Fig. 4 RAPD profiles from various cacao and cocoa samples
 A: Z06 primer, B: AG 15 primer, C: AM10. M: indicates molecular size marker (λ /HindIII and ϕ 174/HaeIII), 1, 2 and 3 are cacao leaf samples, 4 and 5 are cocoa samples from "Nestlé Noir", 6 and 7 are cocoa from "Vendome" and 8 indicates the negative control